

**A new South African species of *Ogcodes* Latreille
(Diptera: Acroceridae) reared from a sac spider of the genus
Cheiracanthium Koch (Miturgidae)**

by

D. A. Barraclough¹ and W. Croucamp²

(¹Natal Museum, P. Bag 9070, Pietermaritzburg 3200; ²Department of Zoology,
University of the Witwatersrand, Private Bag 3, Wits 2050)

ABSTRACT

Ogcodes (Ogcodes) croucampi is newly described from the Northern Province of South Africa. The species was reared from a subadult male of an undetermined species of *Cheiracanthium* Koch (Miturgidae). The duration of the final larval instar was three days and that of the pupa 12 days. The afrotropical fauna of *Ogcodes*, now numbering 12 named species, is briefly reviewed. Southern African spider-host records of Acroceridae are listed.

INTRODUCTION

The southern African fauna of Acroceridae has been partially treated in four papers over the last 13 years (Barraclough 1984 1985 1991*b,c*). Despite the relative rarity of the family in South African entomological collections, and the taxonomic attention it has received in recent years, numerous new species still await description. Genera such as *Psilodera* Gray, *Ogcodes* Latreille, and probably *Thyllis* Erichson, are in need of taxonomic revision.

All known Acroceridae are internal parasitoids of spiders, although very little is known about acrocerid biology in southern Africa. Barraclough (1984) listed only two host records, these being for *Astomella capensis* Schlinger, 1960 (*Moggridgea crudeni* Hewitt) and *Ogcodes caffer* Loew, 1858 (Drassidae, genus undetermined). Schlinger (1987) added a third record, namely *Thyllis crassa* (Fabricius, 1805) reared from a *Machadonia* species (Miturgidae). It was thus of great interest when one of us (W. Croucamp) reared a new South African species of *Ogcodes* from an undetermined species of *Cheiracanthium* (Miturgidae). As valuable biological observations were made, it was deemed necessary to describe the species so that the biological data could be published.

Ogcodes now includes some 12 named afrotropical species (see Schlinger 1980; Barraclough 1984); all belong to the subgenus *Ogcodes* Latreille. *Ogcodes* is widespread in Africa, but seems to be absent from Namibia (Schlinger 1960); it also does not occur in Madagascar (Schlinger 1960 1980), although it has been recorded from Mauritius, where it has probably been introduced (Barraclough 1991*a*). Four species are endemic to South Africa, these being *caffer* Loew, 1858; *fasciata* Barraclough, 1984; *kosi* Barraclough, 1984; and *croucampi* sp. n. (described below).

The morphological terminology used in the following description is based on that

used by Barraclough (1984). Bilaterally symmetrical structures are described in the singular. Body length was measured from the anterior extent of the head to the abdominal apex. Label data of the holotype are quoted exactly as they appear; the end of each line is indicated by a slash (/), and different labels are separated by semicolons. Authorship of the new species name is to be accredited to the senior author.

TAXONOMY

***Ogcodes croucampi* Barraclough, sp. n.**

Figs 1–6

Etymology: Named for Werner Croucamp, who successfully reared the holotype from the host spider.

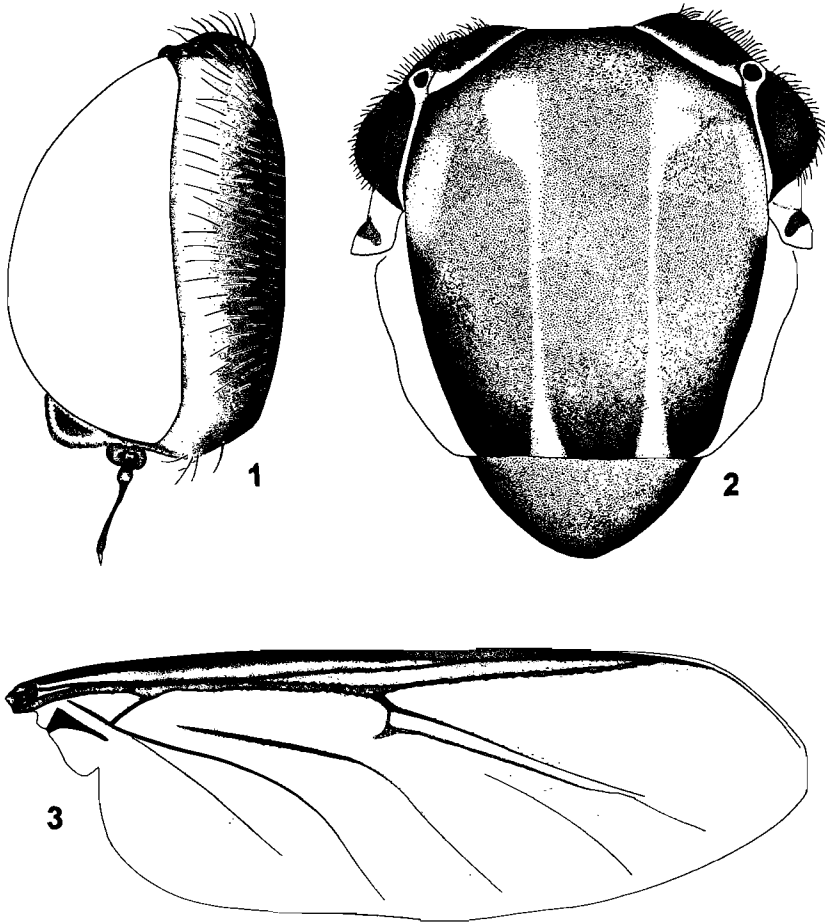
Holotype: 'SOUTH AFRICA: Northern Province / Limpopo Valley betw. Messina / and Pontdrif, 22°12'S:29°23'E / Reared ex wild caught male / *Cheiracanthium* sp., 21.v.1977 / Coll: W. Croucamp'; 'HOLOTYPE ♀ / *Ogcodes croucampi* / Barraclough, 1997' [rectangular card, red perimeter]. In Natal Museum; in fair condition, but apical third of left wing missing and right hind tarsus detached.

Diagnosis: *Ogcodes croucampi* has a yellow-brown to pale brown scutum with three virtually contiguous black vittae (Fig. 2), and the scutellum lacks pale basal corners or margins (Fig. 2). Although five other afrotropical species share these character states, only *O. kosi* Barraclough, 1984, may have some affinity (both species have the scutellum entirely dark brown to black). *O. kosi* differs from *O. croucampi* in having the occiput narrowly exposed behind the eye in profile, the dark scutal vittae much less extensive, the wing almost entirely hyaline, and m-cu partially developed (albeit weakly) (see Barraclough 1984: 43–44).

Female: Dimensions (in mm): Total length 5.0; wing length 5.5.

Head (Fig. 1): Ocellar tubercle shiny black, prominently raised above eye level in profile; pair of dark yellow ocelli antero-laterally. Frontal triangle well exposed in profile, mainly dark brown to black, but noticeably yellowish towards antennal insertions. Scapes dark brown, virtually contiguous. Pedicel yellowish to dark brown. Flagellum dark brown on basal half and indistinctly yellowish apically, styliform, basal one-sixth swollen, apex with two microsetae. Proboscis absent. Occiput black, projecting well behind eye margin, pile white to yellow, longer and more profuse above.

Thorax (Fig. 2): Scutum ground colour yellow-brown to pale brown with yellow pile; vittae black and contiguous or virtually so; median vitta extending from anterior margin of scutum to just short of scutoscutellar suture; lateral vitta broad and black, sharply narrowed anteriorly to reach just posterior of anterior spiracle, mainly occupying posterior five-sixths of scutum. Lateral section of scutum with obvious, small pale marking above wing base. Prothoracic collar area dark brown; postpronotum dark brown but extremities cream; postalar callus cream along upper margin, otherwise dark brown to black; postalar wall mainly black, ventral part cream to yellowish, more broadly so posteriorly. Scutellum entirely blackish without



Figs 1–3. Characters of *Ogcodes (O.) croucampi* sp. n. 1. Head, profile, showing details of all vestiture. 2. Thoracic dorsum, showing disposition of dark ground colour and shape of mesonotal vittae. 3. Wing, showing partial infuscation.

paler basal corners or margins, pile yellow and longer than on scutum. Mesonotum with pile noticeably absent only on lateral extremities of scutellum. Conspicuous cream to pale yellow area between lower margin of postpronotum and upper margin of propleuron. Propleuron dark brown to black with cream ventral margin; pile noticeably yellow. Anepisternum well developed, dark brown to black, broadly cream ventrally, pile yellow, shorter than on propleuron. Katepisternum glossy black, pile absent. Anepimeron anterior to lower calypter mainly cream, pile here yellow, relatively sparse and short. Meron blackish with obvious silver pollinosity. Katepimeron largely cream, without vestiture. Metanepisternum and metakatepisternum a mixture of dark brown and cream, with silver pollinosity. Katatergite dark brown with long white pile. Anatergite yellowish on about dorsal half and dark brown to black ventrally, pile yellow and variable in length, mainly dorsolaterally positioned. Haltere mainly dark brown.

Wing (Fig. 3): Membrane mainly, albeit irregularly, pale brown on anterior half to two-thirds. Veins pale to dark brown. Vein M_1 faintly visible, apparently joined to base of R_{4+5} by r-m (just visible). Vein m-cu completely absent. Anal vein widely separated from Cu_2 distally, distance from margin about half length of M_2 . Lower calypter membrane brownish with black rim, pile on rim and surface white to pale yellow.

Legs: Fore and mid coxae a mixture of cream and dark brown to black, hind coxa mostly black on anterior surface; pile white to pale yellow on anterior surfaces, sparse to absent on posterior surfaces. Trochanters with similar colour and vestiture, although hind trochanter almost entirely dark and pile mostly on ventral surface. Femora irregularly cream and medium to dark brown (apices somewhat pale); pile white to yellow, relatively short and sparse, longer and more profuse distally. Tibiae similarly coloured to femora, but darker colouring more extensive; pile much more profuse. Tarsi medium to dark brown, pile yellow to dark brown, this longer apically on each segment. Pulvilli pale brown; claws black.

Abdomen: T1 and T3–T6 dark brown to black, T2 medium brown; each tergite with slender white fascia along posterior margin, most extensive along T1 although substantially narrowed laterally, otherwise extent comprising about one-fifth to one-sixth length of each tergite; pile white to brown over much of dorsum, similar to background colour, short and relatively profuse. Sternites irregularly coloured, S1 mainly dark brown, S2–S6 mainly cream to pale yellow but dark along anterior margins and dark ground colour more extensive laterally; pile similar to tergites, but mostly white to pale yellow.

DISCUSSION

Ogcodes croucampi was reared from a subadult male of an undetermined *Cheiracanthium* species (Miturgidae), collected on 29th April 1997. When collected, the host spider was found inside a curled-up leaf of an unknown plant. It was immediately apparent that the spider had been parasitised; its abdomen was larger than normal for males, and upon closer examination a single *Ogcodes* larva could clearly be seen inside it. The larva was positioned postero-laterally, just beneath the abdominal cuticle. On 6th May 1997 the final instar larva emerged, resulting in the death of the spider (Fig. 4). The larva was moist and adhered to whatever surface it came in contact with. Three days later (9th May) the prepupal stage was reached adjacent to the dead host, and coiled black meconium was voided (Fig. 5). The pupal stage lasted 12 days and the adult fly emerged on 25th May (Fig. 6); the adult lived for four days.

According to Schlinger (1987), there were 59 araneomorph host records of *Ogcodes* species world-wide, almost double the number recorded by Schlinger (1960). Schlinger (1960) reports that *Ogcodes* larvae pupate one to three days after emergence, and that the duration of the pupal period is 2–10 days; the 12 day pupal period of *O. croucampi* is thus notably longer than the maximum previously recorded.

Ogcodes is recorded as a parasitoid of 14 araneomorph families by Schlinger (1987), with most records in Lycosidae (17) and Salticidae (18). The record of *O.*



Figs 4–6. Photographs of live *Ogcodes* (*O.*) *croucampi* sp. n. adjacent to spider host remains. 4. Newly emerged final instar larva. 5. Prepupa and exuded meconium. 6. Newly emerged adult. [Photographs: W. Croucamp.]

croucampi from *Cheiracanthium* is the first *Ogcodes* record from Miturgidae, although there are three records from the closely related family Clubionidae (Schlinger 1987).

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